

KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication No.: 20010063271 A

(43) Date of publication of application : 09.07.2001

(21) Application No.: 990060301

(22) Date of filing: 22.12.1999

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(51) Int. Cl. H04L 12/28

(54) APPARATUS FOR TRANSMITTING DATA AT HIGH SPEED BY MULTI-CODE OF WIRELESS LOCAL LOOP(WLL) SYSTEM

(57) Abstract:

PURPOSE: An apparatus for transmitting data at a high speed by a multi-code of a wireless local loop(WLL) system is provided to transmit a voice, high-speed data, and a moving picture through the WLL system by transmitting high-speed data with 384 Kbps using a multi-code type in the WLL system using a CDMA communication type.

CONSTITUTION: A serial to parallel converter(21) receives a serial traffic channel bit and converts the received serial traffic channel bit into parallel data. The first to third convolution encoders(22-24) perform a convolution encoding of the parallel traffic channel bit outputted from the serial to parallel converter(21), respectively. The first to third block interleaver(25-27) receive outputs of the first to third convolution encoders(22-24) and perform a block interleaving, respectively. A scrambling code generator(28) generates a scrambling code at a speed with 256 Kbps for a traffic channel. The first to third adders(29-31) add outputs of the first to third block interleaver(25-27) and the scrambling code generator(28). The first to third serial to parallel converters(32-34) convert serial signals outputted from the first to third adders(29-31) into parallel signals, respectively. The first to third symbol repetition units(35-37) regenerates spread adders(38-43) add outputs of the first to third serial to parallel converters(32-34). The fourth to ninth adders(38-43), and a PN chip rate, respectively. Tenth and eleventh adders(44,45) add outputs of the fourth to ninth adders(38-43), and an I-channel sequence and a Q-channel sequence of a forward link, respectively. First and second baseband filters(46,47) perform baseband filterings of outputs of the tenth and eleventh adders(44,45), respectively. The first and second multipliers(48,49) multiply a cosine value($\cos(2\pi fct)$) and a sine value($\sin(2\pi fct)$) by outputs of the first and second baseband filters(46,47), respectively. An accumulator(50) accumulates results of the first and second multipliers(48,49).

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Legal Status

Date of request for an examination (19991222)

Notification date of refusal decision (20030325)

Final disposal of an application (rejection)

Date of final disposal of an application (20030325)